

**APPARATUS AND METHOD FOR COMMUNICATING BETWEEN
COMPUTER SYSTEMS USING A SLIDING SEND WINDOW FOR ORDERED
MESSAGES IN A CLUSTERED COMPUTING ENVIRONMENT**

ABSTRACT OF THE DISCLOSURE

5 A clustered computer system includes multiple computer systems (or nodes)
coupled together via one or more networks that can become members of a group to work
on a particular task. Each node includes a cluster engine, a cluster communication
mechanism that includes a sliding send window, and one or more service tasks that
process messages. The sliding send window allows a node to send out multiple messages
10 without waiting for an individual acknowledgment to each message. The sliding send
window also allows a node that received the multiple messages to send a single
acknowledge message for multiple received messages. By using a sliding send window
to communicate with other computer systems in the cluster, the communication traffic in
the cluster is greatly reduced, thereby enhancing the overall performance of the cluster.
15 In addition, the latency between multiple messages sent concurrently is dramatically
reduced.